Internet Phone

VOICE OVER IP

USER'S MANUAL

Your User Name:
Your Password:
Your Prefix No.:
Your H323 ID:
Your Extension No.:
PI Gatekeeper IP Address: 4.38.32.22

i. INDEX

ii. PACKAGE CONTENTS:

• VoIP Phone Main Unit.
• VoIP Phone Hand Set.
• A 9V/3.0A Power Adapter.
• An RJ-45 Cat-5 Cable
• An RJ-11 Telephone Cable
• An User's Manual

1.VoIP PHONE DIAGRAM

VoIP PHONE PORTS

• Phone   • Network In

• Power-In   • Network Out

USER NAME
PI WALNUT
777777   09:00:00
GATEKEEPER ID   TIME

VoIP PHONE BUTTONS

• LED Display

• Menu Keypad

Use "Func" & "✳" to select

1. Phone Mode
2. Gateway Mode (GW)

• 10 Speed Dials

• Phone Keypad

• Speaker Phone

VoIP PHONE MENU KEYPAD

Speed Dial Button

Phone Book Button

Menu Button

Cancel Button

OK (Confirm)

Message Light

DAM/Message
(Digital Answering Mechine)
to check message

Navigation Button
(up/down and left right)

DAM Setting
(Digital Answering Mechine)
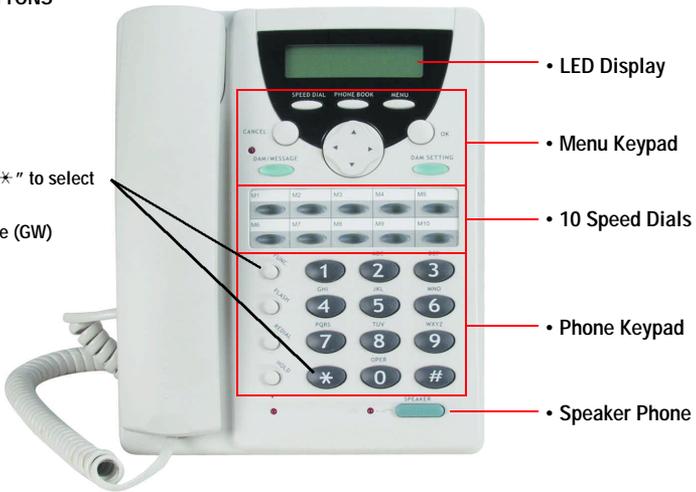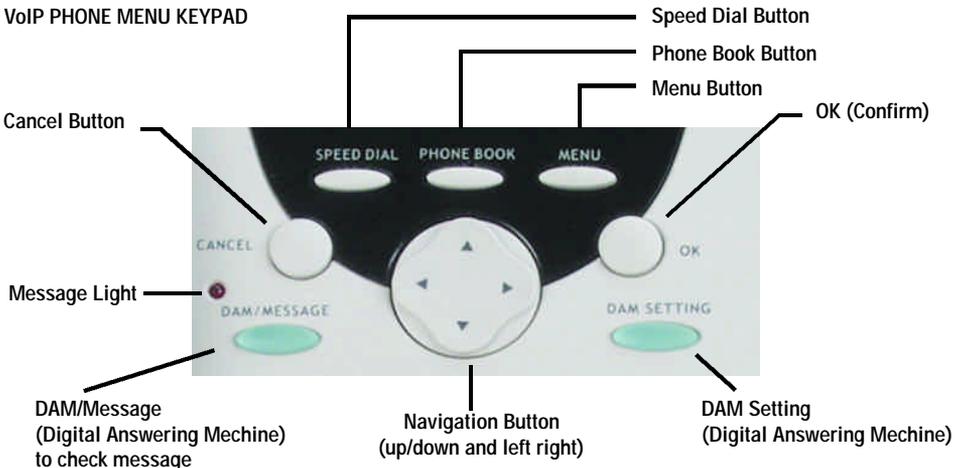
2. INTRODUCTION

Before using VoIPPhone, some setup procedures are required to make the phone work properly.

- When both VoIP Phones have Static IP address, users can dial IP address of VoIP Phone.
- If dynamic IP is used, PI can provide gatekeeper service to assign an extension number for VoIP Phone.
- The VoIP Phone also have gateway function, so user can call from PSTN to VoIP phone, from VoIP phone to another VoIP, or VoIP to PSTN

- No computer required when using this phone.
- Easy configuration through web browser. (i.e. Internet Explorer, Netscape Navigator)
  http://192.168.100.100:9999 (your IP address)   Default user name: user   Default password: user
- Using this VoIP phone as regular phone. (Dial out through PSTN) dial ＊0 to gain PSTN access.
  Ex: if you are calling to 1-800-555-1234, you should dial "＊0 18005551234 #"
- Every VoIP Phone comes with a fixed Extension No. and H323 ID
  These settings are used to register to PI's Gatekeeper. These must not be changed.
  These settings can only be viewed and modified through web browser.

You can use this VoIP Phone to make calls with 6 scenario

VoIP PHONE - VoIP PHONE
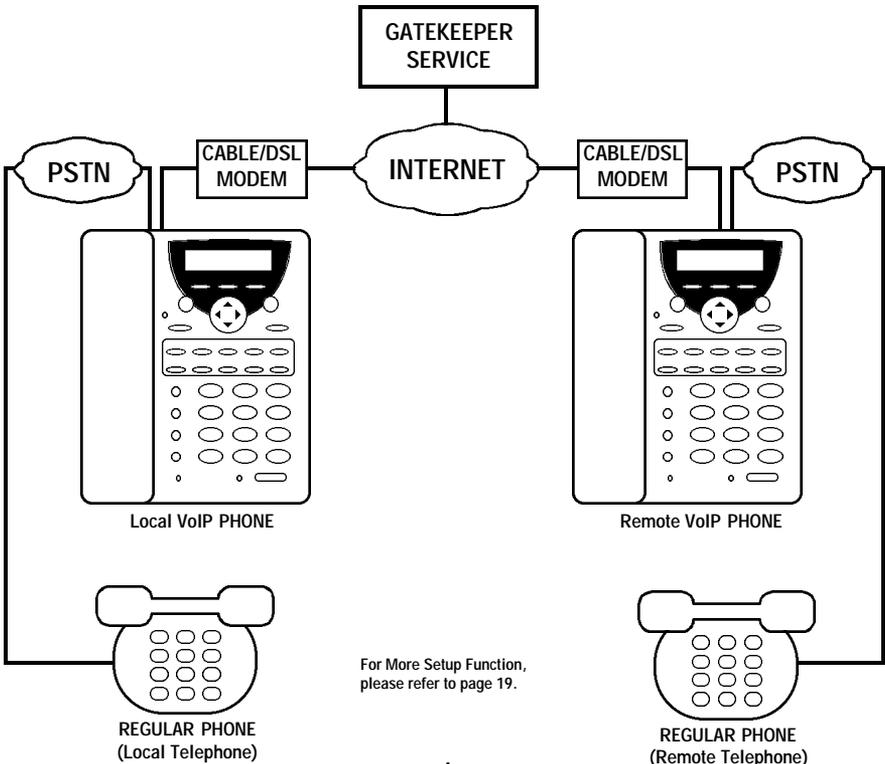**VoIP PHONE - TELEPHONE (local)**
TELEPHONE - VoIP PHONE
VoIP PHONE - VoIP PHONE - TELEPHONE (remote)
TELEPHONE - VoIP PHONE - VoIP PHONE
TELEPHONE (local) - VoIP PHONE - VoIP PHONE - TELEPHONE (remote)

Local VoIP PHONE

Remote VoIP PHONE

For More Setup Function,
please refer to page 19.

REGULAR PHONE
(Local Telephone)

REGULAR PHONE
(Remote Telephone)

4

3. HOW TO SET UP (You can exit the Setup Menu anytime by pressing the "MENU" key again.)

A. Menu Setup

Menu

◯ ◉ **Must Setup in Order for VoIP Phone to Work Properly**

NAME:
USA01 ◯

- Push "Menu" to enter Setup Mode
- Set up the name of the phone
  e.g. USA01

DHCP:
Disable

- Set up DHCP mode (Enable or Disable switched by <– or –> key)
  Leave in Disable mode if you have Static IP Address
  For Dynamic IP Address, DHCP must set to Enable. ◉ settings would be automatically set.

ADSL DIALUP:
NO

- Set up ADSL Dialup mode (for Support PPPoE)
  (Enable or disable switched by <– or –> Key)
  If you select ADSL Dialup to "YES", please refer to Page 6, Note.1.

IP SHARE : NAT
0. 0. 0. 0

- Set up the IP Share Address as the default gateway of the PC by using the Virtual IP
  address for Internet access.
  For IP Sharing, Router's WAN port should connect to the VoIP Phone's PC port

IP ADDRESS :
0. 0. 0. 0 ◉

- Set up IP address when DHCP is disable
  Note*: The default value is 0.0.0.0
  While DHCP is Disable, IP address must be entered.

Router IP :
0. 0. 0. 0 ◉

- Set up the router (Default Gateway) IP address when DHCP is disable.
- Setting the router IP to 0.0.0.0 is recommended when connecting in a LAN environment.
  The default value is 0.0.0.0; When DHCP is Disable, Router IP must be entered.

Subnet Mask
255.255.255. 0 ◉

- Setup subnet mask when DHCP is disable
- The default value is 255.255.255.0 (class C network)
  This value must be on while DHCP is OFF

DNS Server IP:
0. 0. 0. 0

- Set up DNS (Domain Name Service) Server IP Address.
- This function allow IP Phone to look for default SNTP server by Domain name.

SNTP Server IP:
0. 0. 0. 0

- Set up SNTP (Simple Network Time Protocol)
- This function allow IP Phone to get time from the Internet.

DATE: -- / -- / --
TIME: -- : -- : --

- Set up the date (year/month/day) e.g. 99/11/30
- Set up the time (hour:minute:second) e.g. 15:53:20
  Note*: Only needed when SNTP is not available

Time Zone
GMT +   0:00

- Set up the Time Zone

Gatekeeper
No ◯

- Enable or Disable Gatekeeper by <– or –> key
  If you set Gatekeeper to "YES", please refer to Page 6, Note.2.

Default Codec
G.723.1

- Set up the highest priority of the voice codec for this phone.
  (G711Alaw/G.711ULaw/G.723.1/G.729) Your could use <–, –> key to choose.

Gateway #1 IP
--- . --- . --- . ---

- Set up VoIP Gateway IP address for "shortcut dial"
- If you want to dial to PSTN or phone number, the VoIP gateway IP address has to be set.
- There are total 5 Gateways from ✶1 to ✶5
  To Dial for Gateway shortcut dial, simply dial "✶1 #" ~ "✶5 #"
NOTE: When Dialing thru Gateway shortcut dial, enter only static IP or use VPN.

Call Waiting:
Yes

- Call waiting between VoIP and PSTN

Call Forward:
Yes

- Call forward to pre-setting number or IP address.
- If you choose "YES" then you could input the number
  a. IP to IP **(priority 1)**; i.e. 4.38.32.22,a remote unit where you want the call forward to.
  b. From IP to PSTN **(priority 2)**; i.e. 555-1234, a local phone number
  c. From PSTN to IP **(priority 3)**; i.e. 192.168.100.222 forward to this IPif call from PSTN

**Enabling this function, only one of the three options will be chosen. If two or more are
selected, only the one with the higher priority will work. For example, if you want to use
PSTN to IP Call, Priority 1 & 2 should be blank.**

3. HOW TO SETUP (You can exit the setup menu anytime by pressing "MENU" key again.)
A. Menu Setup Con't

Tone Setting: Default	• Set the Tone among different country tone standard or different brand of PBX. • Select the country or user define.
Dial Type: PULSE	• Set the Dial Type of PSTN • You could use <–, –> key to choose PULSE or DTMF
Dialing Timeout: 6 Second	• The function enable when you don't press any key after the period of time, it will automatically dial the number.
MAC Address: 00D0E90022E4	• Shows the MAC of the machine.
Version: IP Phone V2.40	• shows the version of the firmware.

Menu — • When setup complete, press "menu" button again.

UPDATE CHANGES? <OK> OR <Cancel> — • Press <OK> to confirm and save the changes or press <Cancel> to canel all changes

Cancel   **OK**   ***You can exit the setup menu anytime by pressing "MENU" key again.**

NOTE.1: When setting up "ADSL Dialup" or PPPoE function set to "YES"

ADSL ID:	• ID for ADSL Dialup (Internet User Name)
ADSL Password:	• Password for ADSL Dialup (Internet Password)

NOTE.2: When set up "Gatekeeper" function set to "YES"

Gatekeeper IP --- . --- . --- . ---	• Set up Gatekeeper (GK) IP Address • Gatekeeper IP will be supplied from PI and should be set to 4.38.32.22
Ext No (Use G/K)	• PI will preset Ext No (Extension No.) - Do Not Change This Extension No. act as your VoIP Phone number.
GW Prefix(UseG/K)	• Gateway prefix number can be set(*see warning) if you have already set up the Gatekeeper (GK) IP. Once Gateway (GW) prefix has been set, this IP Phone will register as a Gateway in the Gatekeeper. We do not suggest this function to be used and it should be set **blank**.

 *WARNING: GW Prefix is the Identification or password to your VoIP Phone. By enabling this function, you will have access to VoIP Phone's PSTN line. But, if someone else have your Prefix, they can access an outside line thru your VoIP Phone and may run up your telephone bill. **GW Prefix has a maximum of 16 digit number.**

 • PI GK (Gate Keeper) can not recognize Internal IP address (i.e. 192.168.XXX.XXX)
 • If you have to use any IP Sharing (Router), VoIP Phone must be installed in front of Router.
 • You can connect Router's WAN port to VoIP Phone's PC Port for IP Sharing.

Router's WAN Port

• LAN IN
• PC OUT

Internet

3. HOW TO SET UP

B. SPEED DIAL

SPEED DIAL

B-1   Setting the speed dial keys

| Please Select |
| Speed Dial Key |

| M1 | ~ | M10 |

• Press any buttons from M1 to M10 to select

| Phone Number: |
| 4. 38. 32.255 |

• The system will display the current setting (Blank if no previous setting)
• Using the keypad to input the IP address or Phone Numbers.
  For Example: "4∗38∗32∗255 #" for setting up the IP address
              "∗0 5551234 #" for setting up the telephone Number.

| OK |

• **Press "OK" to save and quit SPEED Dial Setup Mode.**

B-2   Using the Speed Dial Keys

| M1 | ~ | M10 |

• Press any button of the speed dial keys from M1 to M10 to Dial

---

Note:
• **M1~M10 setup enable you to do speed dial on your VoIP PHONE.**
• **Gateway shortcut dial ∗1~∗5 allows user to access the VoIP PHONE remotely through regular telephone or another VoIP PHONE.**
  The remote user simply connect to VoIP PHONE and dial "∗1 #"

C. HOLD (MUTE)

After pressing the "HOLD" key, both local & remote side of the communication line will only hear the music playing. (This function only available when codec set as G.723.1 or G.729)

| HOLD | ⟶ | HOLD |

Put on "HOLD" with background music   Press again to stop the function

D. VOLUME ADJUSTMENT

VOLUME

| ▲ | | ▼ |

| Speaker Volume | Handset Volume | Ringer Voume |
| ▬▬▬▬ | ▬▬▬▬▬ | ▬▬ |

Click 'SPEAKER' while handset is on the hook Select up/down to set speaker volume

Pick up the handset, Select up/down to set Handset volume

When IP Phone is on standby mode, Select up/down to set Ringer Volume

E. CALL TRANSFER

This function is available only when both phone support H.450 call transfer. Upon placing a phone call, you can use "call transfer" function to transfer the call to other person. For example: when A is talking to B. A could press "Flash" key and the display will show "Transfer to". A can enter the IP address of C and A will be talking to C. After A hanging up the phone, C can talk with B.

F. PHONE BOOK

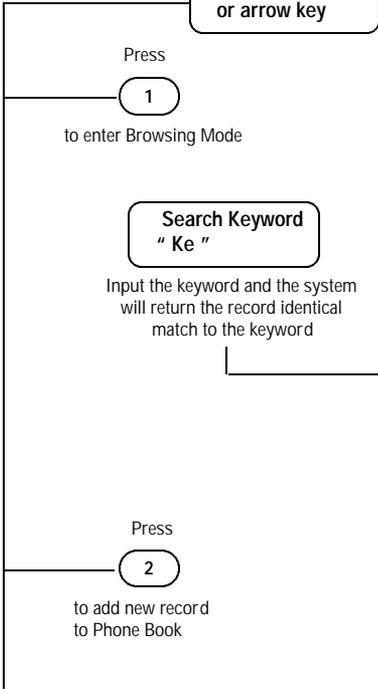Name: •••

Name: XXX
Phone Num:

Every record inside the phone book has 2 fields: Name and Phone number

The Name field is the primary key of the record and phone number is the field you can use to store extension number, phone number or IP address. The phone book records are sorted by Name automatically. You can perform search, add, delete tasks to update your phone book.

PHONE BOOK

Press "P-Book" key again to exit phone book mode

1.Search 2.New
or arrow key

Press

1

to enter Browsing Mode

Search Keyword
" Ke "

Input the keyword and the system will return the record identical match to the keyword

Press

2

to add new record to Phone Book

Cancel

Phone Book

Press Cancel or P-Book Key will return to First Page

OK

System will dial the number in the field then quit Phone book Mode

Cancel

The record will be deleted and the system will return to browsing mode again.

---------- *Browsing Mode* ----------

Use Down Arrow Key   First Record

City Center
123.123.123.123   IP Address

Gary
5551234   Phone No.

Use ▲ or ▼ arrow key to switch between records.

Kevin
11.22.33.44   IP Address

Steven
18005554321   Phone No.

Use Up Arrow Key   Last Record

---------- *Edit Mode* ----------

Use Down Arrow Key   New Record

Name:

Use ▲ or ▼ arrow key to switch between stages.

Phone Number

SAVE?
OK (∗), Cancel (#)

Use Up Arrow Key   New Record

Press "∗" to quit Phone book edit mode and save the changes
Press "#" to quit Phone book edit mode and ignore the changes.

G. DAM (DIGITAL ANSWERING MACHINE)

DAM/MESSAGE

If there is no message.

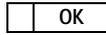**You Have 0 Msg**
0 Unread Mesg

LCD Display

If there is any message.

You have 3 Msg
2 Unread Mesg

Msg 1
11/28 14 : 40 : 03

Msg 2 *Unread*
11/29 09 : 30 : 21

Use ▲ or ▼ arrow key to switch among messages.

OK

Msg 2
Playing …..

Press OK button to listen to the messages and then system will return the previous page without showing "unread" indication.

CANCEL

Press CANCEL button to delete the message

DAM/MESSAGE

Press DAM/Message again to exit the DAM Mode. If there is any message left unread, LED will continue flashing.

H. DAM SETTING

Note**: Only "OK" key will save the OGM (out going message) in.
When you reboot the IP Phone, the OGM will restore to default message.

DAM SETTING ←– Use ▲ or ▼ arrow key to choose setting

Note: After setting up, 'OK' have to be pressed in order to save the setting. When IP phone is turn off or reboot, OGM will restore to default message.

DAM Setting
1.Rcord Message

OK

DAM Setting
Pickup Handset

After picking up the handset, you can start to record the OGM. After finish recording, press 'OK'

OK

DAM Setting
2.Check Message

OK

Play the OGM then goes back to "2.Check Message" again

DAM Setting
3.Enable/Disable

OK

DAM Function
ENABLE

If DAM is enable, LED is ON while there is unread msg. LED flashes After selecting, press 'OK'

OK
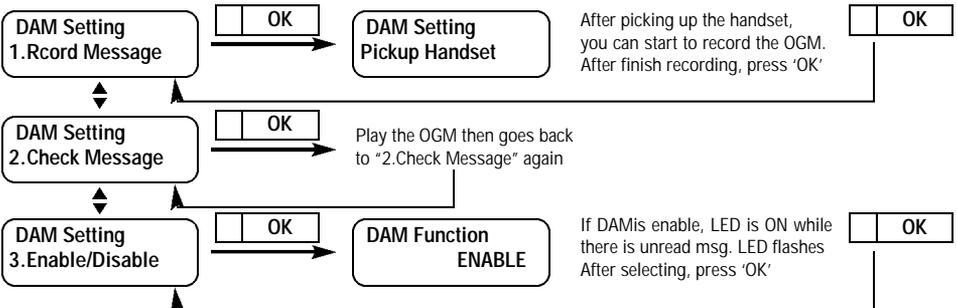
I. IP SHARE/NAT - PC COMPUTER

This function allows the VoIP Phone and PC to share the one global real IP address. You may only have one real IP address assigned by your ISP. With this function we can share one IP address with several PC.

• When "NAT/IP Share" in the VoIP Phone is set as "10.1.1.1"
• The IP address setting for PC is
        IP Address: 10.1.1.2~10.1.1.254
        Subnet Mask: 255.255.255.0
        Default Gateway: 10.1.1.1 (same as IP share address)
• DNS server IP address should be set
(for DNS server IP address please refer to ISP)

Computer

Internet

• **LAN IN**
• **PC OUT**

**PC's RJ-45
Network Port**

PC NAT Setting

Internet Protocol (TCP/IP) Properties   ? X

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
◉ Use the following IP address:

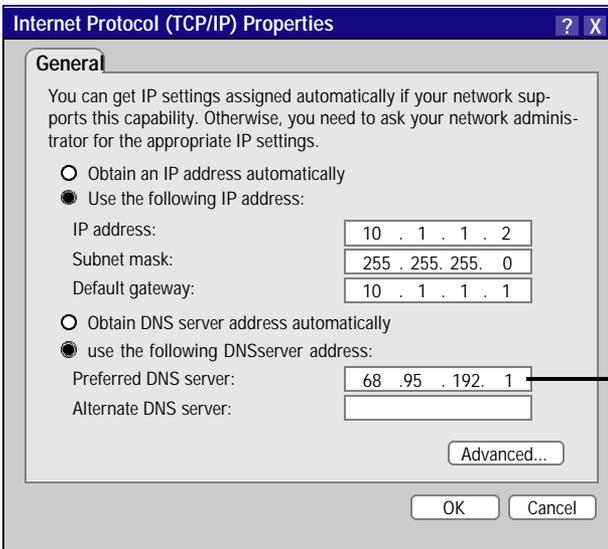|	
IP address:	10 . 1 . 1 . 2
Subnet mask:	255 . 255. 255. 0
Default gateway:	10 . 1 . 1 . 1

○ Obtain DNS server address automatically
◉ use the following DNSserver address:

Preferred DNS server:	68 .95 . 192. 1
Alternate DNS server:	

Advanced...

OK   Cancel

**IP SHARE : NAT
10. 1. 1. 1**

NAT Setting on VoIP Phone

**Please Check with your ISP
for your real DNS IP Numbers**

J. IP SHARE/NAT - ROUTER

First, please setup your Router enable static IP On.
Do not set to Dynamic IP or PPPoE for this setting.

```
IP SHARE : NAT
   10.  1.   1.   1
```

NAT Setting on VoIP Phone

Router   **Internet**

Router's   • LAN IN
WAN Port   • PC OUT

Router Setting
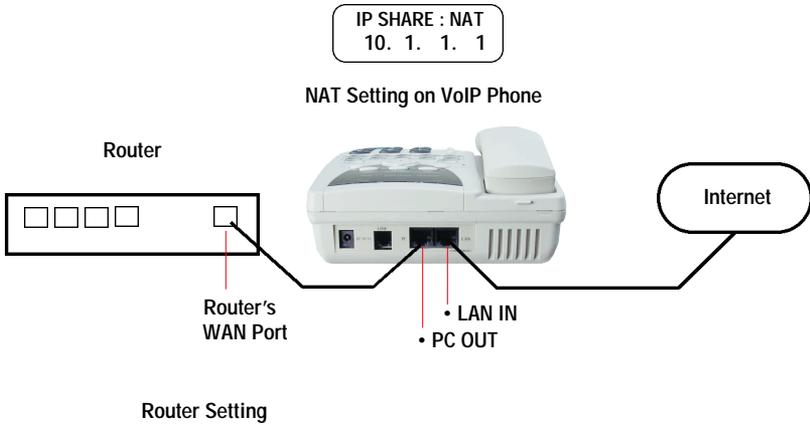
Cable/DSL ISP Settings:
Please set up the following:
IP assigned by your ISP to 10.1.1.2
IP Subnet Mask: 255.255.255.0
ISP Gateway Address: 10.1.1.1
Domain Name Server (DNS) IP Address: 68.95.192.1

Device LAN IP Settings
Please set up the following:
The device LAN IP Address and Subnet Mask
IP Address: 192.168.10.1
IP Subnet Mask: 255.255.255.0

Please Check with your
Internet service provider (ISP)

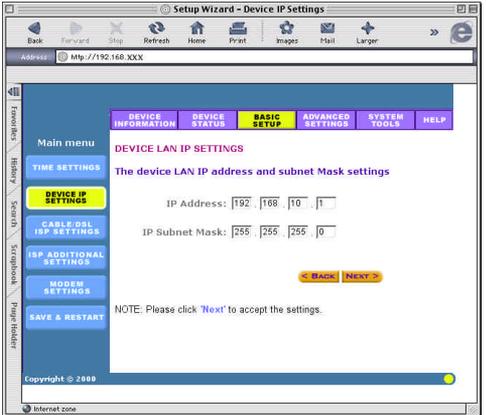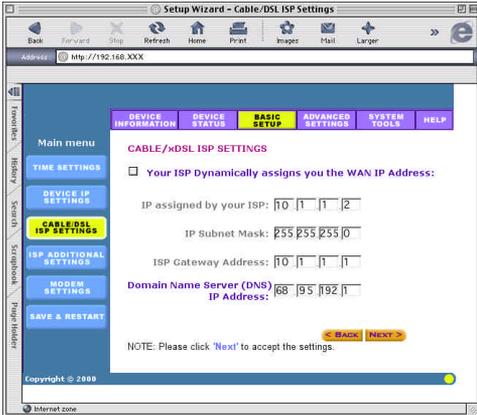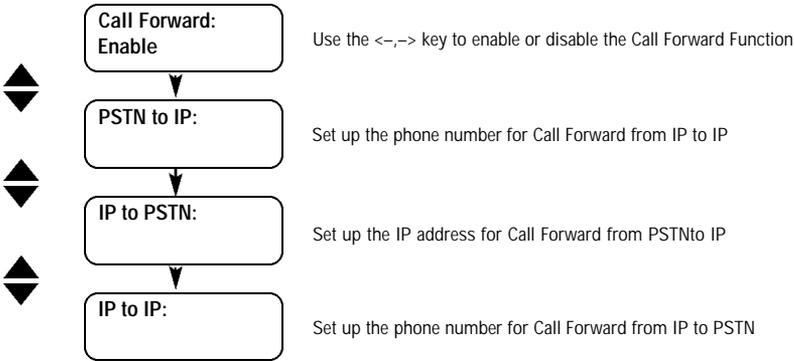## K. CALL FORWARD

The setting for this Gateway function
• you could use the <–,–> key to enable or disable the Call Forward function
• Set up the IP address for Call Foward from PSTN to IP
• Set up the phone number for Call Forward from IP to PSTN
• Set up the phone number for Call Forward from IP to IP

Call Forward: **Enable**	Use the <–,–> key to enable or disable the Call Forward Function
PSTN to IP:	Set up the phone number for Call Forward from IP to IP
IP to PSTN:	Set up the IP address for Call Forward from PSTNto IP
IP to IP:	Set up the phone number for Call Forward from IP to PSTN

• Call forward to pre-setting number or IP address.
   if you choose "YES" then you could input the number
   • **IP to IP (priority 1); (i.e. 192.168.100.200 remote unit where you want the call forward to.)**
   • **From IP to PSTN (priority 2); (i.e. 555-1234 local phone number)**
   • **From PSTN to IP (priority 3); (i.e. 192.168.100.222 forward to this IP if calling from PSTN)**

One of the three option can be chosen. If two or more are selected, only the one with higher priority will work.
For example, if you want to use PSTN to IP Call, Priority 1 & 2 should be blank.

L. BUSY TONE SETTING

Since the busy tone might be different from country to country, make sure to set up your IP Phone's
busy tone for different PSTN environments.

• Select proper tone setup by arrow

• Use the <–,–> key to choose different country.

• Press OK to enter User defined mode, then set up the ms for on/off interval.

Tone Setting:	Select proper tone setup by arrow keys
America:	You can use the <–,–> key to choose different country
User Defined:	Press OK to enter User defined mode, then set up the ms for on/off interval.
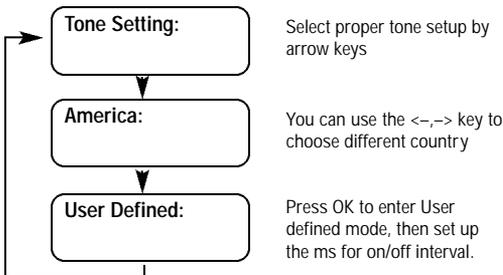
M. GATEWAY/PHONE MODE

The VoIP Phone supports Gateway mode or Phone mode. Set this IP Phone to Gateway mode
if you want to forward incoming PSTN calls to an IP phone.
Otherwise, set up your IP Phone to Phone Mode.

Func
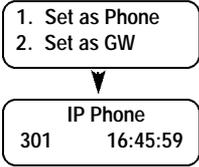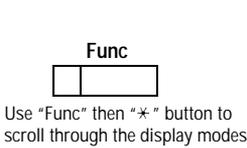
```
1.  Set as Phone
2.  Set as GW
```
Press "1" or "2" for phone or
Gateway mode (GW)

Use "Func" then "✳" button to
scroll through the display modes

```
         IP Phone
301            16:45:59
```

Use **"Func"** then **"✳"** button to scroll through the display modes

Once the Gateway Set to GW (Gateway) and the Foward function is set off.
Calling to this phone will allow the caller access to dial any outside calls.
If you are calling from a telephone, you will hear "Please Dial Phone Number at the Tone".
Dial another VoIP Phone's IP address or extension number to make the call.

Call from User A to VoIP at Location-1, Location-2, or Any User.

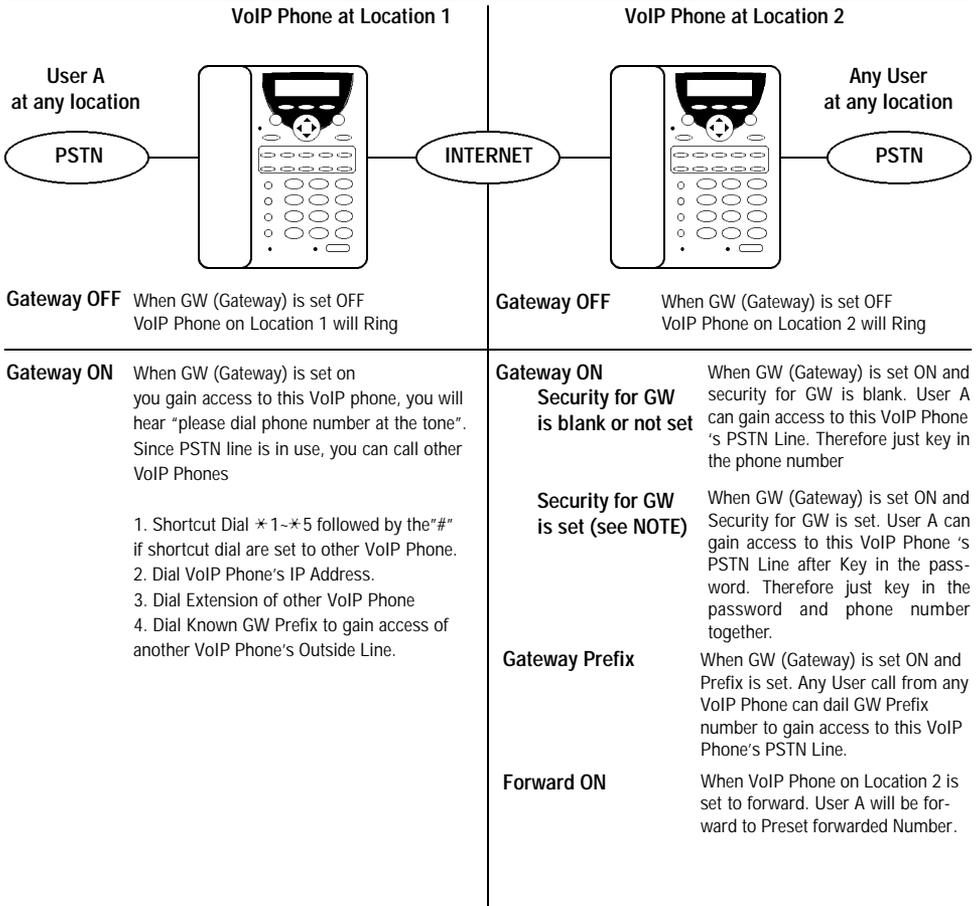| VoIP Phone at Location 1	VoIP Phone at Location 2

User A at any location

PSTN — VoIP Phone at Location 1 — **INTERNET** — VoIP Phone at Location 2 — **PSTN**

Any User at any location

Gateway OFF	When GW (Gateway) is set OFF VoIP Phone on Location 1 will Ring	Gateway OFF	When GW (Gateway) is set OFF VoIP Phone on Location 2 will Ring

Gateway ON	When GW (Gateway) is set on you gain access to this VoIP phone, you will hear "please dial phone number at the tone". Since PSTN line is in use, you can call other VoIP Phones	**Gateway ON** **Security for GW is blank or not set**	When GW (Gateway) is set ON and security for GW is blank. User A can gain access to this VoIP Phone 's PSTN Line. Therefore just key in the phone number
	1. Shortcut Dial ✳1~✳5 followed by the"#" if shortcut dial are set to other VoIP Phone. 2. Dial VoIP Phone's IP Address. 3. Dial Extension of other VoIP Phone 4. Dial Known GW Prefix to gain access of another VoIP Phone's Outside Line.	**Security for GW is set (see NOTE)**	When GW (Gateway) is set ON and Security for GW is set. User A can gain access to this VoIP Phone 's PSTN Line after Key in the password. Therefore just key in the password and phone number together.
		Gateway Prefix	When GW (Gateway) is set ON and Prefix is set. Any User call from any VoIP Phone can dail GW Prefix number to gain access to this VoIP Phone's PSTN Line.
		Forward ON	When VoIP Phone on Location 2 is set to forward. User A will be forward to Preset forwarded Number.

NOTE: Security for GW (Gateway) Password has to set thru the web browser
Easy configuration through web browser. (i.e. Internet Explorer, Netscape Navigator)
   http://192.168.100.100:9999 (your IP address)   Default user name: user   Default password: user

N. LANGUAGE SELECTION

This Ip Phone supports both English and Japanese, the setup process is as below:

• Press <UP> & <DOWN> to toggle between English and Japanese

• Press <OK> to set the selected language and return to stand-by-mode

Func

Use "Func" & "1" button to enter to the Language selection mode

```
Language:
English
```

Press <Up> & <Down> to toggle between English and Japanese

```
        IP Phone
301           16:46:15
```

Press <OK> to set the selected language and return to stand-by mode
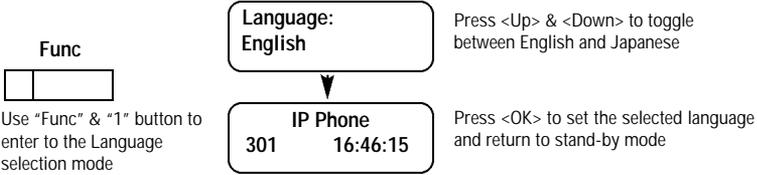
4. HOW TO SET UP VoIP PHONE THRU BROWSER

A. WEB BROWSER CONFIGURATION

Your IP Phone can also be set up by using a web browser, such as "Microsoft IE", "Netscape". Key-in http://ip_address:9999 (ip_address is the IP address of the IP Phone) in URL field to get into the web page. If the password is not BLANK, it will pop up a window for entering the password. You can change settings by click the Hyper-Text in left side of the window. Once completed, press "Submit" to save the settings or press "Reset" to restore the parameter to the original setting. Note: You have to click "Submit" before moving to another page, otherwise the settings will be lost. You must reboot your computer to activate any new settings.

Default User Name: User
Default Password: User

Note: When Password field is blank, User Name is disabled. You have to log-in to the browser using User Name: User; Password: User Whenever you are changing the User Name field, password should be set also.

Please set your User Name and Password when you received this product.

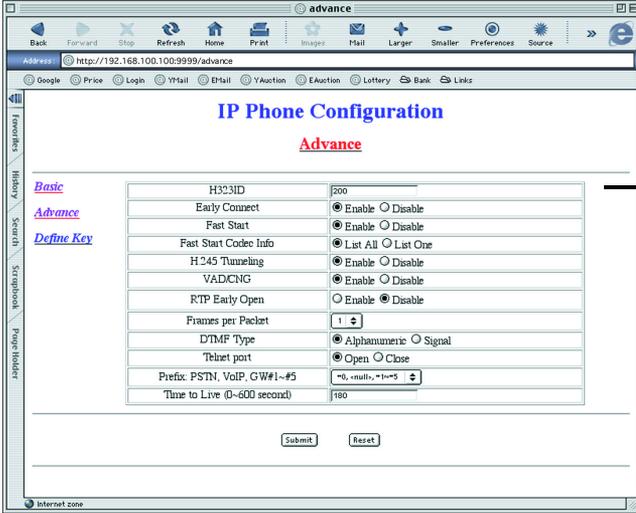**Other VoIP Phone's IP Address These should be static IPs.**

When Call Forward is Enabled Please choose only one option either from IP to PSTN, PSTN to IP or IP to IP. Leave the other two field blank.

Please leave this field blank. This number will be shown on Gatekeeper Server.

This field is your GK password It is used for the Gatekeeper service. This password can only be set in the web browser.

15

B. ADVENCED SETTING

Please do NOT change setting on this page

H323ID	200
Early Connect	● Enable ○ Disable
Fast Start	● Enable ○ Disable
Fast Start Codec Info	○ List All ○ List One
H.245 Tunneling	● Enable ○ Disable
VAD/CNG	● Enable ○ Disable
RTP Early Open	○ Enable ● Disable
Frames per Packet	1 ↕
DTMF Type	● Alphanumeric ○ Signal
Telnet port	● Open ○ Close
Prefix: PSTN, VoIP, GW#1~#5	*0, <null>, *1~*5 ↕
Time to Live (0~600 second)	180

[Submit] [Reset]

C. QUICK DIAL SETTING

IP Phone Configuration

Define Key

F1	192.168.166.1	F2	*09095983718	F3	4.38.32.22	F4	192.168.199.4	F5	192.168.222.5
F6		F7		F8		F9		F10	
HOLD		FLASH	

[Submit] [Reset]

This is the Quick Dial Setting You can set it to IP address or Telephone numbers.

Setting up PSTN or telephone call, please use "＊0", phone number and followed by a #.

Example: 555-1234 Dial "＊0 5551234 #"

5. HOW TO USE VoIP PHONE

LOCATION A **LOCATION B** **LOCATION C** **LOCATION D**

PSTN Internet PSTN

Telephone
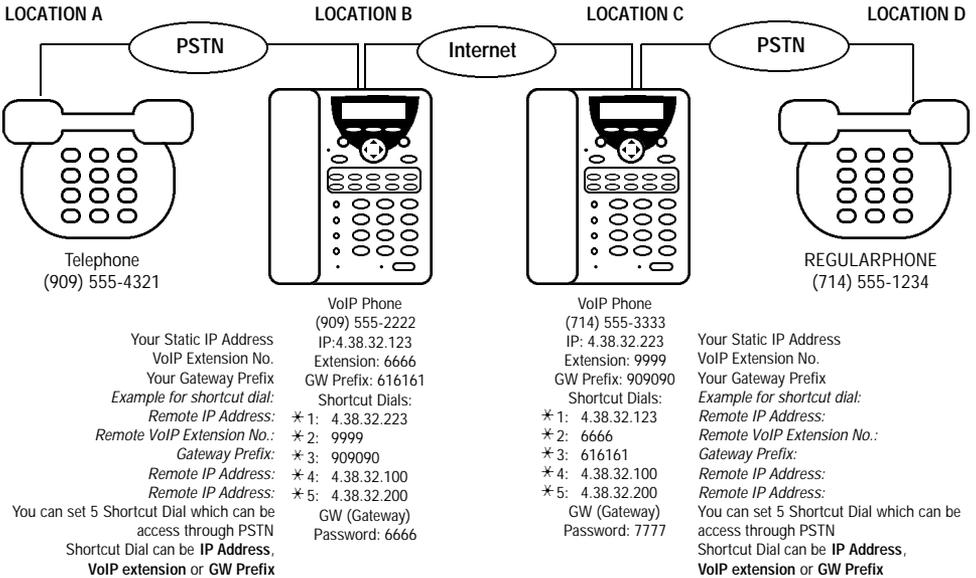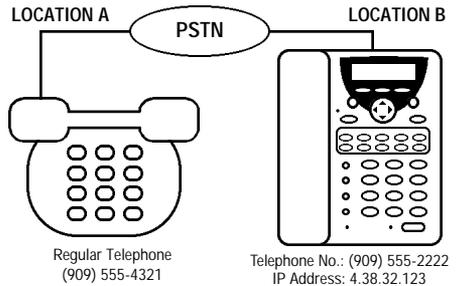(909) 555-4321

REGULARPHONE
(714) 555-1234

VoIP Phone
(909) 555-2222
IP:4.38.32.123
Extension: 6666
GW Prefix: 616161
Shortcut Dials:
✶ 1: 4.38.32.223
✶ 2: 9999
✶ 3: 909090
✶ 4: 4.38.32.100
✶ 5: 4.38.32.200
GW (Gateway)
Password: 6666

VoIP Phone
(714) 555-3333
IP: 4.38.32.223
Extension: 9999
GW Prefix: 909090
Shortcut Dials:
✶ 1: 4.38.32.123
✶ 2: 6666
✶ 3: 616161
✶ 4: 4.38.32.100
✶ 5: 4.38.32.200
GW (Gateway)
Password: 7777

Your Static IP Address
VoIP Extension No.
Your Gateway Prefix
Example for shortcut dial:
Remote IP Address:
Remote VoIP Extension No.:
Gateway Prefix:
Remote IP Address:
Remote IP Address:
You can set 5 Shortcut Dial which can be
access through PSTN
Shortcut Dial can be **IP Address**,
VoIP extension or **GW Prefix**

Your Static IP Address
VoIP Extension No.
Your Gateway Prefix
Example for shortcut dial:
Remote IP Address:
Remote VoIP Extension No.:
Gateway Prefix:
Remote IP Address:
Remote IP Address:
You can set 5 Shortcut Dial which can be
access through PSTN
Shortcut Dial can be **IP Address**,
**VoIP extension** or **GW Prefix**

There are 4 different ways to make a phone call with VoIP Phone

- Dial IP address directly **"4✶38✶32✶250 #"** (IP: 4.38.32.250)
  or "192✶168✶100✶100 #" (IP: 192.168.100.100) while using VPN
  replace "." with "✶" in the IP address, use # to finish dialing.

- Dial VoIP extension, a free (GK) gatekeeper service provided by PI.
  You can dial the extension of another VoIP phone (i.e. "66666 #")

- Dial through VoIP Phone to telephone when GW (gateway) is enabled.
  You can simply dial "✶1" (shortcut dial), password and phone no.
  You can store 5 shortcuts "✶1"~"✶5", they can be IP or VoIP extension.

- Dialing through regular phone line "✶0 19095983718 #)
  Note: Dial "✶ 0" to access regular phone line.

A. MAKING A TELEPHONE CALL TO VOIP PHONE

LOCATION A **LOCATION B**

PSTN

Regular Telephone
(909) 555-4321

Telephone No.: (909) 555-2222
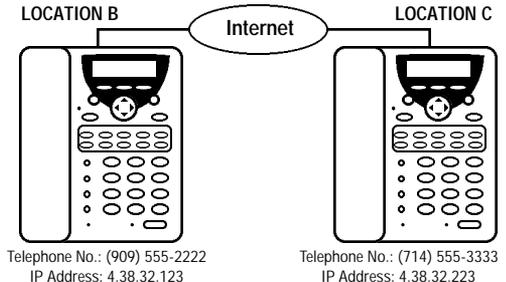IP Address: 4.38.32.123

When making a call from location A to location B
Simply dial "5552222". Regular Phone on location B will ring.
Pick up handset and you can begin communication.

C. MAKING A REGULAR TELEPHONE CALL
LOCATION A **LOCATION B**

PSTN

Regular Telephone
(909) 555-4321

Telephone No.: (909) 555-2222
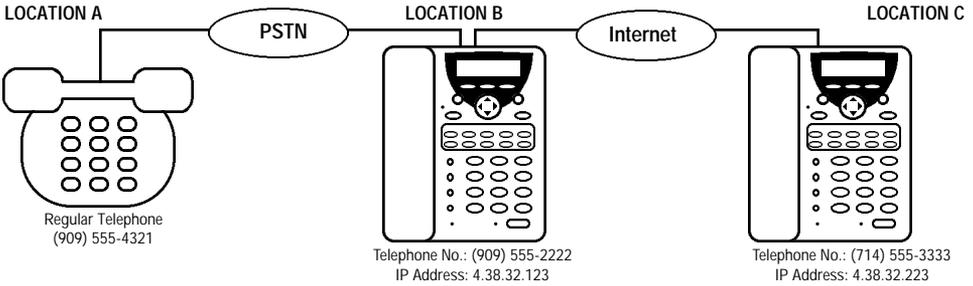IP Address: 4.38.32.123
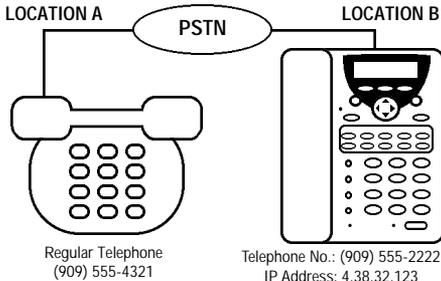
When making a call from location B to location A
Simply dial "✶ 0 5554321 #". Regular Phone on location A will ring.
Pick up handset and you can begin communication.

C. MAKING A INTERNET CALL TO VOIP PHONE
LOCATION B **LOCATION C**

Internet

Telephone No.: (909) 555-2222
IP Address: 4.38.32.123

Telephone No.: (714) 555-3333
IP Address: 4.38.32.223

When making a call from location B to location C
Simply dial "4✶38✶32✶223 #". VoIP Phone on location C will ring.
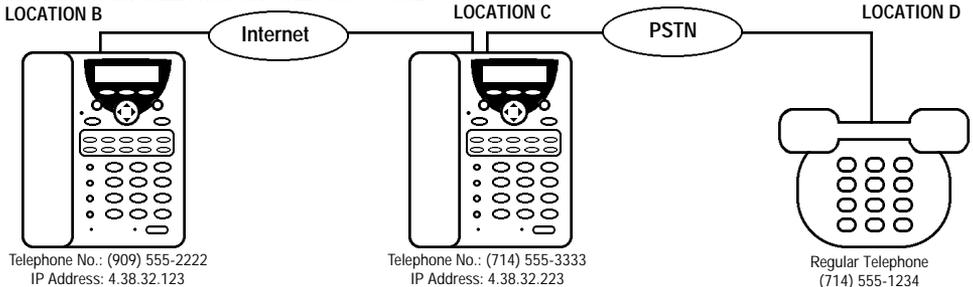Pick up handset and you can begin communication.

E. MAKING A PHONE CALL TO ANOTHER VOIP PHONE

LOCATION A **LOCATION B** **LOCATION C**

Regular Telephone
(909) 555-4321

Telephone No.: (909) 555-2222
IP Address: 4.38.32.123

Telephone No.: (714) 555-3333
IP Address: 4.38.32.223

When making a call from location A to location C
VoIP Phone on Location B must set GW (Gateway) ON.
To make a call from Location A to B Simply Dial "5552222".
You will hear "please dial phone number at the tone"
Dial IP of VoIP Phone Number on Location C "4✴38✴32✴223 #"

If VoIP phone at Location B has set up 4.38.32.223 to its shortcut dial ✴1. You can simply dial "✴1 #" after you hear "please dial phone number at the tone". VoIP Phone at Location B can also be set up to forward call to Location C. If Auto forward is set to 4.38.32.223, then User at Location A need only to place a call to Location B and will be automatically transfered to VoIP Phone at Location C.
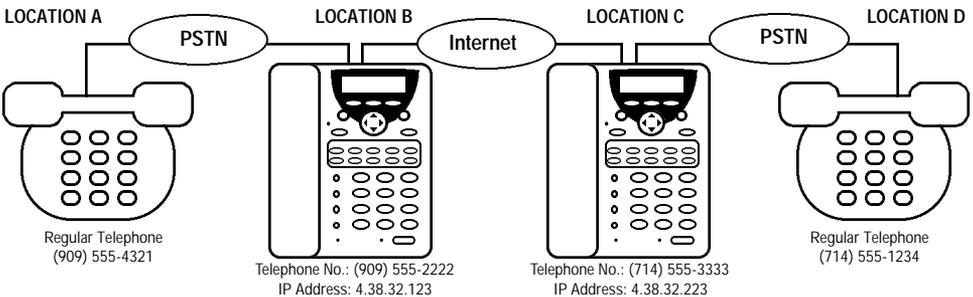
C. MAKING A GW CALL FROM ANOTHER VOIP PHONE

LOCATION B **LOCATION C** **LOCATION D**

Telephone No.: (909) 555-2222
IP Address: 4.38.32.123

Telephone No.: (714) 555-3333
IP Address: 4.38.32.223

Regular Telephone
(714) 555-1234

When making a call from location B to location D
VoIP Phone on Location C must set GW enabled
We can set IP address of Location C to shortcut dial from ✴1~✴5
We can simply set this up to ✴1 with IP 4.38.32.233
While VoIP Phone's GW (Gateway) is "ON" at Location C
i. If VoIP Phone on Location C does not have GW password.
   You can simply dial "✴1 5551234 #" to call Location D
ii. If VoIP Phone on Location C have GW password (example. 7777)
   You can simply dial "✴1 7777 5551234 #" to call Location D

If VoIP Phone on Location C have set a GW Prefix. Example 909090.
At the tone, dial "909090 #" wait 2 sec, dial "5551234" to call Location D
If you make call to Location C frequently, you can now set shortcut dial ✴1 to 909090 5551234. And you can now make the call by pressing "✴1 #" or you can set ✴1 to 909090 and dial "✴1 5551234 #" after the tone.
Warning : Since GW Prefix doesn't require password to access your phone. It's recommanded to leave it blank in order to prevent unauthorized use of VoIP Phone. Since Any VoIP phone can call your GW Prefix and gain access of your PSTN phone lines

F. MAKING A GW CALL FROM REGULAR PSTN PHONE

LOCATION A **LOCATION B** **LOCATION C** **LOCATION D**

Regular Telephone
(909) 555-4321

Telephone No.: (909) 555-2222
IP Address: 4.38.32.123

Telephone No.: (714) 555-3333
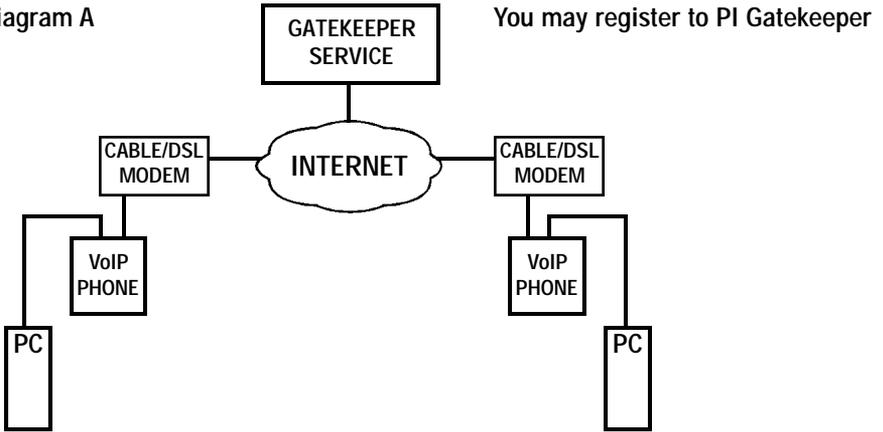IP Address: 4.38.32.223

Regular Telephone
(714) 555-1234

When making a call from location A to location D
VoIP Phone at Location B must set GW enabled and set up VoIP Phone at Location C to it's shortcut dial between ✴1~✴5
We can set shortcut dial ✴1 with IP 4.38.32.233
While VoIP Phone's GW (Gateway) is "ON" at Location C.
i. If VoIP Phone on Location C does not have GW password.
   You (Location A) can simply dial 555-2222 to call Location B,
   After hearing "please dial phone number at the tone", dial
   "✴1 5551234 #" **Note**: dial "✴1" will call to Location C. At location C
   because no password required, you can simply enter the phone
   number at Location D where you want to call.
ii. If VoIP Phone on Location C have GW password (example. 7777)
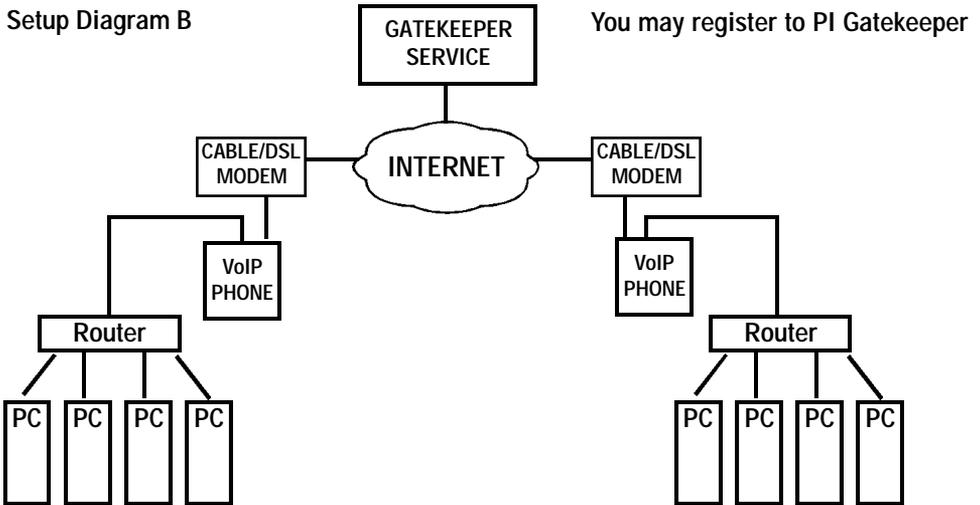   You can simply dial "✴1 7777 5551234 #" to call Location D

If VoIP Phone on Location C have a GW Prefix. Example 909090
You (Location A) can call to Location B, after you hear "please dial phone number at the tone", dial "909090#" wait 2 sec and dial "5551234 #" to call Location D. If you make call to Location D frequently, you can now set short cut dial ✴1 at Location B to "887766 5551234 #". And you can make the call by pressing "✴1 #" at the tone. You can also set ✴1 to 887766 and dial "✴1 5551234 #" after the tone.
Warning: Since GW Prefix doesn't require password to access your phone It's recommanded to leave it blank in order to prevent unauthorized use of VoIP Phone. Since Any VoIP phone can call your GW Prefix and gain access of your PSTN phone lines.

18

6. SETUP DIAGRAM

Setup Diagram A

You may register to PI Gatekeeper

```
                    GATEKEEPER
                     SERVICE
                        |
   CABLE/DSL         INTERNET        CABLE/DSL
    MODEM                             MODEM
      |                                 |
     VoIP                              VoIP
    PHONE                             PHONE
      |                                 |
     PC                                PC
```

Setup Diagram B

You may register to PI Gatekeeper

```
                    GATEKEEPER
                     SERVICE
                        |
   CABLE/DSL         INTERNET        CABLE/DSL
    MODEM                             MODEM
      |                                 |
     VoIP                              VoIP
    PHONE                             PHONE
      |                                 |
    Router                           Router
  /  |  |  \                       /  |  |  \
 PC PC PC PC                      PC PC PC PC
```

Note 1: PI Gatekeeper is a free service. This free service is dependent on the longevity of each ISP (Internet Service Provider), network/internet traffic and cost of maintenance. As this is a free service, PI is not responsible for any liabilities and losses due to any down-time.

Setup Diagram C (Not Recommanded, Professional Installation Required)
PI Gatekeeper does NOT support for this setting.
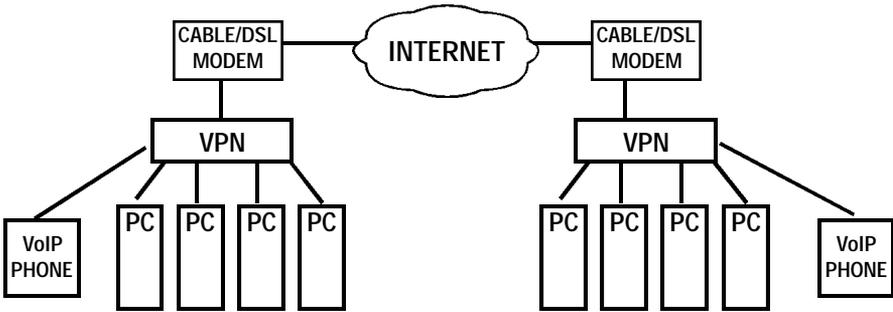
You can only call to your
internal IP address,

You can only call to your
internal IP address,

Setup Diagram D (Not Recommanded, Professional Installation Required)
PI Gatekeeper does NOT support for this setting.

You can only call to your
statuc IP address,
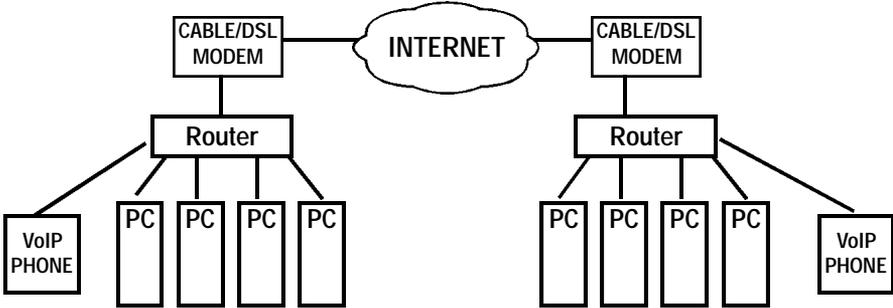
You can only call to your
static IP address,

Note 1: For setting up as Diagram C,D, Each VoIP PHONE require it's own static IP address.
Note 2: If dynamic IP, you should used DYNDNS (Dynamic IP Solution) and assign port
    1719~1720 and 41000~41001 for VoIP PHONE.

---

6. ABBREVIATIONS

ADSL:	Asymmetric Digital Subscribe Line
CNG:	Comfortable Noise Generation
DAM:	Digital Answering Machine
DHCP:	Dynamic Host Configuration Protocol
DTMF:	Dual Tone Multi-Frequency
IP:	Internet Protocol
NAT:	Network Address Translation
PPPoE:	Point-to-Point Protocol Over Ethernet
PSTN:	Public Switch Telephony Network
SNTP:	Simple Network Time Protocol
VAD:	Voice Activate Detection
VoIP:	Voice over Internet Protocol
VPN:	Virtual Private Network

Gatekeeper:
Gateway:
G723:
G711:
G729A/B:
MAC Address:

PI Gatekeeper: 4.38.32.22
If this IP Address does not respond, please visit
http://www.pimfg.com or http://www.callpi.com
to obtain a new gatekeeper IP address.

STATIC IP QUICK SETUP

(You can exit the Setup Menu anytime by pressing the "MENU" key again.)

Menu

| NAME:
USA01 | • Push "Menu" to enter Setup Mode
• Set up the name of the phone (e.g. PI WALNUT) |

| DHCP:
Disable | • Skip (Leave as default) |

| ADSL DIALUP:
NO | • Skip (Leave as default) |

| IP SHARE : NAT
0. 0. 0. 0 | • Skip (Leave as default) |

User Name

PI WALNUT
777777   09:00:00

Extension No.   Time

Upon Completion, your LEDDisplay should
contain the following information.

| IP ADDRESS :
0. 0. 0. 0 | • Set up Your IP address. |

| Router IP :
0. 0. 0. 0 | • Set up your ISP Gateway Address. |

| Subnet Mask
255.255.255. 0 | • The default value is 255.255.255.0 (Please check with your ISP) |

| DNS Server IP:
0. 0. 0. 0 | • Leave as default. (Please check with your ISP) |

| SNTP Server IP:
0. 0. 0. 0 | • Set up SNTP (Simple Network Time Protocol)
• This function allow IP Phone to get time from the Internet.
If you do not know how to set this up. Skip to next step. |

| DATE: -- / -- / --
TIME: -- : -- : -- | • Set up the date (year/month/day) e.g. 99/11/30
• Set up the time (hour:minute:second) e.g. 15:53:20 |

| Time Zone
GMT +   0:00 | • Set up the Time Zone
  If you do not know how to set this up. Skip to next step. |

| Gatekeeper
No | • Enable or Disable Gatekeeper by <– or –> key
If you want to use the GK (Gatekeeper) please enable this function. |

| Gatekeeper IP
--- . --- . --- . --- | • Enable or Disable Gatekeeper by <– or –> key
If you want to use the GK (Gatekeeper) please enable this function. |

| Ext No (Use G/K) | • Set up Gatekeeper (GK) IP Address
• Gatekeeper IP will be supplied from PI and should be set to 4.38.32.22 |

Menu

• To save and exit press "menu" button and then "OK".
• To cancel and exit press "menu" button and then "Cancel"

DYNAMIC IP QUICK SETUP

(You can exit the Setup Menu anytime by pressing the "MENU" key again.)

Menu

NAME:
USA01
• Push "Menu" to enter Setup Mode
• Set up the name of the phone (e.g. PI WALNUT)

DHCP:
Enable
• Set up DHCP mode to Enable

ADSL DIALUP:
NO
• Skip (Leave as default)

IP SHARE : NAT
0. 0. 0. 0
• Skip (Leave as default)

IP ADDRESS :
0. 0. 0. 0
• Skip (Leave as default)

Router IP :
0. 0. 0. 0
• Skip (Leave as default)

Subnet Mask
255.255.255. 0
• Skip (Leave as default)

DNS Server IP:
0. 0. 0. 0
• Skip (Leave as default)

SNTP Server IP:
0. 0. 0. 0
• Set up SNTP (Simple Network Time Protocol)
• This function allow IP Phone to get time from the Internet.
If you do not know how to set this up. Skip to next step.

DATE: -- / -- / --
TIME: -- : -- : --
• Set up the date (year/month/day) e.g. 99/11/30
• Set up the time (hour:minute:second) e.g. 15:53:20

Time Zone
GMT +   0:00
• Set up the Time Zone
  If you do not know how to set this up. Skip to next step.

Gatekeeper
No
• Enable or Disable Gatekeeper by <– or –> key
If you want to use the GK (Gatekeeper) please enable this function.

Gatekeeper IP
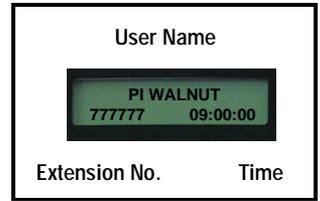**--- . --- . --- . ---**
• Enable or Disable Gatekeeper by <– or –> key
If you want to use the GK (Gatekeeper) please enable this function.

Ext No (Use G/K)
• Set up Gatekeeper (GK) IP Address
• Gatekeeper IP will be supplied from PI and should be set to 4.38.32.22

Menu
• To save and exit press "menu" button and then "OK".
• To cancel and exit press "menu" button and then "Cancel"

User Name

PI WALNUT
**777777   09:00:00**

Extension No.   Time

Upon Completion, your LEDDisplay should
contain the following information.

ADSL (PPPoE) QUICK SETUP

(You can exit the Setup Menu anytime by pressing the "MENU" key again.)

Menu

NAME:
USA01
- Push "Menu" to enter Setup Mode
- Set up the name of the phone (e.g. PI WALNUT)

DHCP:
Enable
- Set up DHCP mode (Enable or Disable switched by <− or −> key)
  Leave in Disable mode if you have Static IP Address
  For Dynamic IP Address, DHCP must set to Enable.

ADSL DIALUP:
YES
- Set up ADSL Dialup mode to YES

ADSL ID:
- ID for ADSL Dialup (Internet User Name)

ADSL
Password:
- Password for ADSL Dialup (Internet Password)

IP SHARE : NAT
0. 0. 0. 0
- Skip (Leave as default)

IP ADDRESS :
0. 0. 0. 0
- Skip (Leave as default)

User Name

PI WALNUT
777777   09:00:00

Extension No.   Time

Upon Completion, your LEDDisplay should
contain the following information.

Router IP :
0. 0. 0. 0
- Skip (Leave as default)

Subnet Mask
255.255.255. 0
- Skip (Leave as default)

DNS Server IP:
0. 0. 0. 0
- Skip (Leave as default)

SNTP Server IP:
0. 0. 0. 0
- Set up SNTP (Simple Network Time Protocol)
- This function allow IP Phone to get time from the Internet.
  If you do not know how to set this up. Skip to next step.

DATE: -- / -- / --
TIME: -- : -- : --
- Set up the date (year/month/day) e.g. 99/11/30
- Set up the time (hour:minute:second) e.g. 15:53:20

Time Zone
GMT +   0:00
- Set up the Time Zone
  If you do not know how to set this up. Skip to next step.

Gatekeeper
No
- Enable or Disable Gatekeeper by <− or −> key
  If you want to use the GK (Gatekeeper) please enable this function.

Gatekeeper IP
4 . 38. 32. 22
- Set up Gatekeeper (GK) IP Address
- Gatekeeper IP will be supplied from PI and should be set to 4.38.32.22

Ext No (Use G/K)
- PI will preset Ext No (Extension No.) - Please Do Not Change
  This allows other VoIP Phone to dial your VoIP Phone by G/K
  (Gatekeeper) Extension instead of typing your IP address.
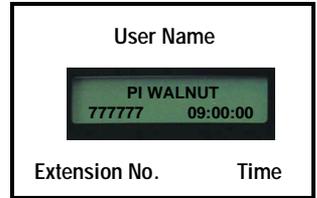
Menu
- To save and exit press "menu" button and then "OK".
- To cancel and exit press "menu" button and then "Cancel"

By removing this label, you agree to conform to the conditions below.

PI Gatekeeper is a free service. This free service is dependent on the longevity of each ISP (Internet Service Provider), network/internet traffic and cost of maintenance. As this is a free service, PI is not responsible for any liabilities and losses due to any down-time.

label